Part 1 -- Amendment to the Claims

1.   (Currently Amended) A device for receiving and playing back audio/visual (A/V) content selected from one ~~or more sources of transmitted A/V content comprising:~~

~~one or more receivers~~ of a plurality of different simultaneously and

5   continuously supplied sources of A/V content ~~each having an A/V input and an A/V signal converter, the A/V inputs selectively receiving transmitted~~, comprising:

a receiver connected to receive the A/V content from each of the different A/V content sources[[,]] and [[the]] including at least one A/V signal converter~~s converting the transmitted A/V content into~~ to convert the A/V content

10   received from each of the A/V content sources into corresponding digital A/V signals[[;]]

~~a video~~ , the digital A/V signals including an audio portion and a video portion;

a display circuit coupled to ~~the receivers and having an input, a video~~

15   ~~output and a~~ each receiver to receive the digital A/V signals, the display circuit including video encoding circuitry~~, the input receiving a video portion of the digital A/V signals from a selected one of the receivers, the video encoding circuitry~~ for converting the video portion of the received digital A/V signal into a video display signal, ~~and the video output emitting the display signal;~~

20   ~~at least one~~ the display circuit including audio encoding circuitry for converting the audio portion of the received digital A/V signal into an audio display signal, the display circuit supplying the video and audio display signals for use in creating an A/V display of the A/V content of each digital A/V signal;

a content capture unit coupled to ~~the receivers and comprising a~~

25   ~~close caption (CC) data slicer that extracts CC content from the A/V content, a digitized audio capturing unit that extracts audio content from the A/V content, or a video still image capture unit that extracts a still image from the A/V content, the content capture unit receiving at least~~ each receiver to receive and capture a

portion of the digital A/V signals, ~~capturing part of~~ corresponding to the A/V

30 content from all of the A/V sources, the content capture unit comprising at least

one of a close caption (CC) data slicer or a digitizing audio capture unit or a video

still image capture unit, the CC data slicer extracting CC content from the digital

A/V signals ~~and outputting the captured part of~~ from each of the A/V sources as

the captured portion of the A/V content, the digitizing audio capturing unit

35 extracting audio content from the digital A/V signals; ~~and~~

~~a captured content storage unit~~ from each of the A/V sources as the

captured portion of the A/V content, and the video still image capture unit

extracting a still image from the digital A/V signals from each of the A/V sources as

the captured portion of the A/V content;

40 storage memory coupled to the content capture unit ~~and comprising~~

~~memory storage space, the memory storage space receiving and storing the~~

~~captured part of the~~ to receive and store the captured portions of the digital A/V

signals in a captured content segment of the storage memory, the storage memory

also selectively coupled to the receivers to selectively receive and store the digital

45 A/V signals in a full content segment of the storage memory, the storage memory

further including an instruction segment for recording operating instructions;

a processor connected to the storage memory and each receiver;

and

a user input device connected to the processor and the storage

50 memory by which to supply user-selected search criteria and user-selected

response criteria to the storage memory and the processor;

the processor responding to the operating instructions recorded in

the instruction segment of the storage memory and the search and response

criteria to operatively:

55 cause each receiver to receive the A/V content from each of

the different A/V content sources in a scan sequence;

3

send the corresponding digital A/V signals supplied by each receiver from each of the different A/V content sources during the scan sequence to the content capture unit to enable the content capture unit to extract the

60   captured portion of the A/V content from each of the different A/V sources during the scan sequence;

store the extracted captured portions of A/V content for each of the different A/V content sources in the captured content segment of the storage memory;

65   search through the extracted captured portions of A/V content in the captured content segment of the storage memory in accordance with the search criteria;

locate a match between the search criteria and at least one of the stored extracted captured portions of A/V content to thereby identify and select

70   an A/V source containing A/V content correlated to the search criteria;

controlling each receiver and the storage memory to execute one of a plurality of different response actions in response to the user-selected response criteria, the response actions including recording in the full content portion of the storage memory the corresponding digital A/V signals from the

75   ~~content capture unit.~~ selected A/V source for subsequent use by the display circuit to create a display, and supplying the corresponding digital AV signals from the selected AV source to the display circuit to create an instantaneous display of the AV content from the selected AV source substantially simultaneously with the continuous supply of A/V content from the selected AV content source.

2.   (Currently Amended) A device as defined in ~~claim 1~~ claim 1, wherein:

the CC data slicer receives ~~a video~~ the video portion of the digital A/V signals and ~~extracts and~~ captures [[a]] and extracts the CC content ~~part of~~

5   from the video portion;

4

the ~~digitized~~ digitizing audio capturing unit receives ~~an audit~~ the audio portion of the digital A/V signals and captures ~~a part of~~ and extracts the audio content from the audio portion; and

the video still image capture unit receives the video portion of the digital A/V signals and captures [[a]] and extracts the video still image part of the video portion.

3.   (Canceled)

4.   (Canceled)

5.   (Currently Amended) A device as defined in ~~claim 4~~ claim 1 wherein the [[user]] user-selected search criteria comprises textual criteria related to the CC content captured by the CC data slicer, audio criteria related to the ~~part of the~~ audio ~~portion~~ content captured by the ~~digitized~~ digitizing audio ~~capturing~~ capture unit, or video criteria related to the video still image captured by the video still image capture unit~~, or a combination thereof~~.

6.   (Canceled)

7.   (Canceled)

8.   (Currently Amended) ~~An A/V device~~ A device as defined in ~~claim 7~~ claim 1, wherein the response ~~instructions comprise~~ actions further include:
    ~~instructions to provide~~ causing a visible alert ~~signal~~ from the display circuit;
    ~~instructions to provide~~ causing an audible alert ~~signal;~~
    ~~instructions to begin displaying, through~~ from the ~~video~~ display ~~circuit,~~ circuit;
    displaying the ~~A/V content~~ CC content from the selected ~~channel in which the match was located;~~
    ~~instructions to display~~ A/V source;
    capturing the video still image from the selected A/V source; and

recording the CC content part from the selected ~~channel in which the match was located;~~

15 ~~instructions to capture a video still image by the video still image capture unit from the video portion of the digital A/V signal of the selected channel in which the match was located;~~

~~instructions to record the A/V content of the selected channel in which the match was located;~~

20 ~~instructions to record the CC content part of the selected channel in which the match was located; or~~

~~a combination thereof.~~ A/V source in the storage memory.

9.   (Canceled)

10.   (Original) A device as defined in claim 1, wherein:

the sources of A/V content comprise a DVD source, a broadcast programming source, and a web programming site.

11.   (Original) A device as defined in claim 1, wherein:

the sources of A/V content include at least all of a DVD source, a broadcast programming source, and a web programming site;

one of the receivers comprises a DVD receiver for receiving DVD

5   content from the DVD source;

one of the receivers comprises a TV tuner for receiving broadcast programming from the broadcast programming source; and

one of the receivers comprises a web browser for receiving web programming from the web programming site.

12.   (Original) A device as defined in claim 11, wherein:

the one receiver which includes the DVD receiver includes a DVD decoder within the DVD receiver;

the one receiver which includes the TV tuner includes a video

5   analog-to-digital converter (ADC) and an audio ADC; and

the one receiver which includes the web browser includes a web browser program which operates the web browser.

13.   (Original) A device as defined in claim 1, wherein the display circuit further comprises:

a PAL/NTSC video encoder connected to at least one receiver.

14.   (Original) A device as defined in claim 1, wherein the display circuit further comprises:

progressive monitor video encoding circuitry including a de-interlacing unit connected to one receiver, a video scaler connected to the de-interlacing unit, and a video digital-to-analog converter (DAC) connected to the video scaler.

15.   (Currently Amended) A method ~~for processing AV~~ of processing audio/visual (A/V) content in an A/V device, comprising ~~the steps of~~:

~~providing an A/V channel~~:

providing a plurality of A/V channels each of which supplies different A/V content simultaneously and continuously with each of the other A/V channels;

receiving an A/V signal describing the A/V content from ~~the A/V channel~~ each A/V channel;

supplying the A/V signal from each A/V channel in a scan sequence which encompasses all of the plurality of A/V channels;

capturing a portion of the A/V signal, ~~wherein~~ from each A/V channel during the scan sequence;

selecting the captured portion of the A/V signal ~~comprises a CC~~ as one of a close caption (CC) portion, an audio portion, or a video still image, ~~or a combination thereof; and~~

storing the captured portion of the A/V ~~signal~~ signal;

specifying search criteria;

specifying response criteria;

7

searching through the captured portions of the A/V signals from each of the A/V channels in accordance with the search criteria;

20   locating a match between the search criteria and at least one of the captured portions of the A/V signals from each of the A/V channels to thereby identify and select the A/V channel providing the A/V signals whose captured portion matches the search criteria; and

executing a response action in response to the response criteria, the

25   response actions including one of recording the A/V signals from the selected A/V channel for subsequent use in creating a display of the A/V content from the corresponding A/V signals from the selected A/V channel or supplying the A/V signals from the selected A/V channel and creating an instantaneous display of the A/V content from the corresponding A/V signals from the selected A/V channel.

     16.   (Canceled)

     17.   (Canceled)

     18.   (Currently Amended) A method as defined in ~~claim 17~~ claim 15, wherein[[:]]

the user search criteria comprises textual criteria related to the CC portion of the A/V signal, audio criteria related to ~~the audio~~ an audio portion of the

5   A/V signal, or video criteria related to the video still image of the A/V signal~~, or a combination thereof~~.

     19.   (Currently Amended) A method as defined in ~~claim 18~~ claim 18, wherein[[:]]

the video criteria ~~comprises a match within~~ constitutes a predetermined tolerance of differences between the video still image and ~~a~~

5   ~~predetermined~~ characteristics of a desired image.

     20.   (Canceled)

     21.   (Currently Amended) A method as defined in claim 18 further comprising ~~the step of:~~

capturing and indexing the CC portion of the A/V signal according to save criteria, wherein:

5   specifying save criteria for storing the captured portions, the save criteria comprises are comprising at least one of a frequency of save for storing of the CC portion, frequency of search a frequency for locating a match, storing a predetermined number amount of minutes time of CC content stored before and/or after [[the]] locating a match location, or a time-based order of matched textual

10   criteria, or a combination thereof.

22.   (Canceled)

23.   (Currently Amended) A method as defined in claim 22 claim 15, wherein[[:]]

the responding step comprises the response actions further steps

5   include at least one of[[:]]

providing a visible alert signal;

providing an audible alert signal;

displaying, according to an A/V display format, the A/V content from the selected A/V channel in which the match was located;

10   displaying, according to a CC display format, text of;

displaying the CC portion of the from the corresponding A/V signal from the selected A/V channel in which the match was located;

capturing displaying the video still image of the A/V signal from the selected A/V channel in which the match was located;

15   recording the A/V content of the selected A/V channel in which the match was located;

recording the text of the CC portion of the A/V signal of the selected A/V channel in which the match was located; or

a combination thereof.

24.   (Currently Amended) A method as defined in claim 24 claim 23, further comprising the step of:

9

setting ~~one or more priorities~~ a priority for at least one of the

response ~~instructions,~~ criteria and the search criteria~~, the A/V and/or CC display~~

5 ~~format, the A/V and/or CC recording, the text of the CC portion, or a combination~~

~~thereof~~.

25. (Canceled)

26. (Currently Amended) A method as defined in ~~claim 16~~ claim 15,

wherein the captured portion of the A/V signal for each A/V channel comprises CC

content, and the method further ~~comprising the step of~~ comprises:

displaying the CC content of ~~at least one~~ the selected A/V channel

5 for viewing.

27. (Currently Amended) A method as defined in ~~claim 26~~ claim 26,

further comprising ~~the step of~~:

displaying the CC content of more than one A/V channel for

simultaneous viewing.

28. (Currently Amended) A method as defined in ~~claim 26~~ claim 26,

further comprising ~~the steps of~~:

receiving the CC content from the selected A/V channel at a first rate;

and

5 displaying the CC content at a second rate different from the first

rate.

29. (Currently Amended) A method as defined in claim 15 ~~further~~

~~comprising the step of:~~

~~providing one or more A/V channels comprising,~~ wherein the plurality

of A/V channels include at least one of a DVD source, a broadcast programming

5 source, ~~and a web~~ or a web programming site.

30. (Currently Amended) A method as defined in ~~claim 29~~ claim 15,

wherein the plurality of A/V channels include at least all of a DVD source, a

broadcast programming source, and a web programming site, and the method

further ~~comprising the steps of~~ comprises:

10

5   receiving DVD content from the DVD source as the A/V signal;

receiving broadcast programming from the broadcast programming source as the A/V signal; and

receiving web programming from the web programming site~~,~~

~~or a combination thereof~~ as the A/V signal.

31.   (Currently Amended) ~~A method as defined in claim 30, wherein~~ A method for processing A/V content in an A/V device comprising the steps of:

providing an A/V channel;

receiving an A/V signal from the A/V channel;

5   capturing a portion of the A/V signal, wherein the portion of the A/V signal comprises a CC portion, an audio portion, a video still image, or a combination thereof;

storing the captured portion of the A/V signal;

providing one or more A/V channels comprising a DVD source, a

10 broadcast programming source, and a web programming site;

receiving DVD content from the DVD source, receiving broadcast programming from the broadcast programming source, receiving web programming from the web programming site, or a combination thereof; and wherein:

the DVD content includes subtitle content which is played back at a

15 first rate simultaneously with playback of the A/V content, the method further comprising ~~the steps of~~:

capturing the subtitle content at a second rate that is faster than the first rate;

indexing the captured subtitle content; and

20   searching for matches within the indexed subtitle content.

32.   (Currently Amended) A method as defined in ~~claim 30~~ claim 30, further comprising ~~the step of~~:

searching the captured portion of the A/V signal of at least one broadcast programming source and at least one DVD source simultaneously.

11

33. (Currently Amended) A method as defined in ~~claim 30~~ claim 30, wherein the web programming includes a live A/V broadcast with CC content.

34. (Currently Amended) A method as defined in claim 30, wherein the broadcast programming includes the CC portion, and the method further ~~comprising the step of~~ comprises:

enabling displaying karaoke features for the CC portion of the
5 broadcast programming.

35. (Currently Amended) A method as defined in ~~claim 15~~ claim 15, further comprising ~~the steps of~~:

~~selecting~~ displaying the A/V signal of the selected A/V channel through video encoding circuitry which is a selected from ~~between~~ either a
5 PAL/NTSC video encoder ~~and a progressive~~ or a progressive monitor video encoding circuitry; and

~~displaying the A/V signal through the selected video encoding circuitry~~.

36. (Currently Amended) A method as defined in ~~claim 35~~ claim 35, wherein the A/V signal is digital, and the method further comprises:

upon ~~selection of~~ selecting the progressive monitor video encoding circuitry, the displaying ~~step further comprises the steps of~~:

5   is achieved de-interlacing the A/V ~~signal~~ signal,

scaling the de-interlaced A/V ~~signal~~ signal, and

converting the de-interlaced A/V signal from a digital signal to an analog signal.

37. (Currently Amended) A method as defined in claim 15, wherein the A/V device comprises a digital versatile disk (DVD) player for playing back DVD content on a display ~~comprising~~, and the DVD player comprises:

a video encoding circuit comprising a digital video input, a video
5 signal converter and a display signal output, the digital video input receiving a digital video signal, the video signal converter converting the digital video signal

12

into a display signal, and the display signal output providing the display signal to the display;

a source of compressed DVD content, the source of compressed

10   DVD content constituting one of the A/V channels;

a DVD decoder comprising a DVD input connected to the DVD content source and a DVD output connected to the digital video input of the video encoding circuit, the DVD input receiving the compressed DVD content, and the DVD output providing decoded DVD content decoded from the compressed DVD

15   content; and

a broadcast television (TV) tuner comprising a broadcast input and a program output, the broadcast input receiving multiple broadcast TV programs, each broadcast TV program constituting one of the A/V channels, and the program output connected to the digital video input of the video encoding circuit and

20   providing a selected one of the multiple broadcast TV programs to the video encoding circuit;

and wherein and wherein:

the video encoding circuit converts either the selected TV program or the decoded DVD content into the display signal.

38.   (Currently Amended)   A DVD player method as defined in claim 37 claim 37, wherein the DVD player further comprising comprises:

a second broadcast TV tuner comprising a broadcast input and a program output, the broadcast input receiving the multiple broadcast TV programs,

5   and the program output connected to the digital video input of the video encoding circuit and providing a second selected one of the multiple broadcast TV programs to the video encoding circuit;

and wherein and wherein:

the video encoding circuit converts the selected TV program first

10   aforesaid, the second selected TV program or the decoded DVD content into the display signal.

13

39. (Currently Amended) A method as defined in claim 15, wherein the A/V device comprises a digital versatile disk (DVD) player for playing back a digital video signal on a conventional television or progressive monitor, the DVD player comprising:

5   a source of the digital video signal derived from the A/V signal of the selected A/V channel, the digital video signal being interlaced and having a source resolution; and

a video encoding circuit comprising a digital video input, a video encoder, a de-interlacing unit, a video scaler, a video digital-to-analog converter

10   (DAC) and a display signal output, the digital video input connected to the video encoder and the de-interlacing unit, the de-interlacing unit connected to the video scaler, the video scaler connected to the video DAC, and the video DAC connected to the display signal output;

and wherein:

15   the digital video input receives the digital video signal and provides the digital video signal to a selected one of either the video encoder or the de-interlacing unit;

the video encoder encodes the digital video signal into a conventional television signal having a first display resolution and provides the

20   conventional television signal to the conventional television; and

the de-interlacing unit de-interlaces the digital video signal into a progressive video signal, the video scaler scales the progressive video signal into a scaled video signal having a second display resolution, the video DAC converts the scaled video signal into a display signal, and the display signal output provides

25   the display signal to the progressive monitor.

40. (Currently Amended) A ~~DVD player~~ method as defined in ~~claim 39~~ claim 39, wherein with respect to the DVD player:

the first display resolution is equal to or less than the source resolution; and

14

5   the second display resolution is equal to or greater than the source

resolution.

41.   (Currently Amended) A ~~DVD player~~ method as defined in ~~claim 39~~

claim 39, wherein:

the source of the digital video signal comprises either a DVD source

~~and a conventional~~ or a conventional broadcast television source.

42.   (Currently Amended) A method as defined in claim 15, wherein the

A/V device comprises a digital versatile disk (DVD) player for playing back ~~an~~

~~audio/visual (A/V)~~ the A/V signal from the selected A/V channel, the DVD player

comprising:

5   a source of the A/V signal, the A/V signal comprising close caption

(CC) content, audio content and video content, the source of the A/V signal being

one of the plurality of A/V channels;

at least one content capture unit coupled to the source of the A/V

signal, the content capture unit receiving at least a portion of the A/V signal and

10   capturing part of the A/V signal, and each content capture unit comprising at least

one of:

a CC data slicer;

an audio capture unit; or

a video still image capture unit; [[or]]

15   ~~a combination thereof; and~~

a captured content storage unit coupled to the content capture unit

and comprising memory storage space, the memory storage space receiving the

captured part of the A/V signal from the content capture unit and storing the

captured part of the A/V signal.

43.   (Currently Amended) A ~~DVD player~~ method as defined in ~~claim 42~~

claim 42, wherein:

the ~~source of the AV signal comprises~~ source of A/V signals

comprise a DVD source and a conventional broadcast television source.

44.   (Currently Amended) A ~~DVD player~~ method as defined in ~~claim 43~~ claim 43, wherein:

the ~~source~~ sources of [[the]] A/V signal ~~further comprises~~ is further comprise a World Wide Web A/V source.

45.   (Currently Amended) ~~Based on some of the previous method~~ A method. ~~claims A~~ as defined in claim 15, wherein the A/V device comprises a programmable storage device readable by a machine and which tangibly ~~embodying~~ embodies a program of instructions executable by the machine to

5   ~~perform method steps for processing~~ process A/V content ~~in an A/V device, the method steps comprising: providing an A/V channel;~~

~~receiving an~~ by executing the following:

providing the plurality of A/V channels;

receiving the A/V signal from ~~the A/V~~ each A/V channel;

10   capturing a portion of the A/V signal, wherein the portion of the A/V signal comprises one of a CC portion, an audio portion, a video still image, ~~or a combination thereof~~; and

storing the captured portion of the A/V signal.

46.   (Currently Amended) A ~~programmable storage device~~ method as defined in claim 45, wherein the ~~method steps further comprise~~ programmable storage device:

~~scanning~~ scans through [[a]] the plurality of A/V channels in

5   sequence;

~~receiving~~ receives the A/V signal from each of the A/V channels during the sequence of scanning;

~~capturing~~ captures the portion of the A/V signal from each of the A/V channels; and

10   ~~storing~~ stores the captured portion of the A/V signal from each of the A/V channels.

16

47. (Currently Amended) A ~~programmable storage device~~ <u>method</u> as defined in claim 46, wherein the ~~method steps~~ <u>programmable storage device</u> further ~~comprise~~:

      ~~searching~~ <u>searches</u> through the captured ~~portion~~ <u>portions</u> of the A/V signals from each of the A/V channels to locate [[a]] <u>the</u> match with ~~user search~~ <u>the search</u> criteria.

48. (Currently Amended) A ~~programmable storage device~~ <u>method</u> as defined in claim 47, wherein the ~~method steps further comprise~~:

      ~~the user~~ search criteria comprises <u>at least one of</u> textual criteria related to the CC portion of ~~the A/V~~ <u>each A/V</u> signal, audio criteria related to ~~the audio~~ <u>an audio</u> portion of ~~the A/V~~ <u>each A/V</u> signal, <u>or</u> video criteria related to the video still image of ~~the A/V~~ <u>each A/V</u> signal~~, or a combination thereof~~.

49. (Currently Amended) A ~~programmable storage device~~ <u>method</u> as defined in claim 46, wherein the captured portion of the A/V signal for each A/V channel comprises ~~CC content~~ <u>CC content,</u> and the method [[steps]] further ~~comprise~~ <u>comprises</u>:

      displaying the CC content of each A/V channel for viewing.

50. (Currently Amended) A ~~programmable storage device~~ <u>method</u> as defined in claim 45, wherein the method [[steps]] further ~~comprise~~ <u>comprises</u>:

      ~~providing~~ <u>using at least two different ones of</u> ~~one or more A/V channels comprising~~ a DVD source, a broadcast programming source, and a web programming site <u>as the plurality of A/V channels</u>.